



Class I, Class II and Class III Areas

Within the Clean Air Act (CAA), the Environmental Protection Agency (EPA) established class distinctions to prevent deterioration of air quality within regions around the country. Depending on your location, the increment standards as well as the evaluation performed for those standards will vary.

Class I Areas

Class I Areas are pristine areas that have special national or regional value due to their natural, scenic, recreational, and/or historic worth, where almost no change from the current air quality is allowed. There are two Class I areas in the State of Missouri: Hercules Glades Wilderness Area and Mingo Wildlife Refuge. Arkansas also has a Class I area along its northern boundary that Missouri must also be concerned with called Upper Buffalo Wilderness Area, refer to the figure entitled “State of Missouri, Class I Area Locations.” Under the CAA, the Federal Land Managers, FLM, are tasked with the responsibility to protect Class I Areas from the adverse impacts of air pollution. In the [*“Federal Land Managers’ Air Quality Related Values Work Group \(FLAG\) Phase I Report – Revised 2010”*](#) document, the FLM outlines the requirements for when a Class I analysis is needed to be performed. If you are located within 50 kilometers of a Class I area then an analysis will be required. If you are located at a distance greater than 50 kilometers then the FLM request you use the following equation to determine if an analysis is necessary:

$$Q/D \leq 10$$

Q = sum of annual emissions (in tons per year, based on 24-hour maximum allowable emissions) of SO₂, NO_x, PM₁₀ and sulfuric acid mist (H₂SO₄).

D = distance (in kilometers) from the Class I area

It has been determined by the FLM that if a source is located at a distance greater than 50 kilometers and the emissions to distance ratio is less than 10, the impacts to the Class I area will be negligible and an impact analysis would not be requested.

Class II Areas

Class II Areas encompass nearly all other areas in the U.S. These areas are only allowed moderate change in the air quality and have stringent standards to meet. Other than the two Class I areas listed above, the rest of the State of Missouri is considered Class II areas. Any permit application with emissions levels above de minimis are required to evaluate its impact on existing increment within the area surrounding the source at the time of permitting. This evaluation is done using the AERMOD modeling system.



Class I, Class II and Class III Areas

Class III Areas

A Class III Area is classified as an industrialized area. Substantial industrial or other growth is allowed in these areas which have the most relaxed standards to meet. Currently there are no Class III areas in the United States.

